

What is claimed is:

- 1           1.     A fuel additive composition comprising a lithium aromatic sulfonate and  
2     an organic peroxide.
- 1           2.     The fuel additive composition of claim 1, wherein the composition is  
2     provided in a solvent-based system.
- 1           3.     The fuel additive of claim 1, wherein there are two organic peroxides.
- 1           4.     The fuel additive of claim 3, wherein one peroxide is *tert*-butyl  
2     perbenzoate.
- 1           5.     The fuel additive of claim 3, wherein one peroxide is 2-butanone  
2     peroxide.
- 1           6.     The fuel additive of claim 1, wherein the lithium aromatic sulfonate is a  
2     C<sub>7-35</sub> alkylbenzenesulfonate.
- 1           7.     The fuel additive of claim 1, wherein the lithium aromatic sulfonate is  
2     didodecylbenzene sulfonate.
- 1           8.     The fuel additive of claim 2, wherein the solvent is diphenyl.

1 9. A fuel composition comprising a fuel in admixture with an additive  
2 comprising lithium benzene sulfonate and an organic peroxide, wherein the  
3 composition is provided in the fuel in an amount of 1:100 to 1:10,000 parts by weight  
4 of additive to weight of fuel.

1 10. The fuel composition of claim 9, wherein the fuel is gasoline.

1 11. The fuel composition of claim 9, wherein the fuel is diesel.

1 12. A method for operating a gasoline-powered, artificial ignition, internal  
2 combustion engine, comprising providing to said engine a fuel comprising gasoline  
3 and a fuel additive comprising a mixture of a lithium aromatic sulfonate and organic  
4 peroxide.

1 13. The method of claim 12, wherein the fuel additive is provided in a  
2 solvent-based system miscible with said gasoline fuel.

1 14. The method of claim 12, wherein the fuel comprises from 1 to 100 parts  
2 by weight of additive to 10,000 parts by weight of fuel.